

REMARKS

By this Amendment, the Specification has been amended, and Claims 1, 2, 3, 8, 9, 10, 11 and 14 have been amended, to place this application in immediate condition for allowance.

In the outstanding Office Action, the Examiner has rejected Claims 1-14 under 35 U.S.C. 112, second paragraph, as allegedly being indefinite. Concerning Claim 1, the Examiner indicated that the limitation “a ceramic material encapsulated within a metallic material on one side of said ceramic material” is vague and indefinite, and also alleged that it was not clear how “encapsulated” allows a plate to be “interposed between” the ceramic and the metallic material. Additionally, in the same claim, the Examiner alleged that “other sides” is indefinite and lacks antecedent basis. Concerning these issues, Claim 1 has been thoroughly revised and amended to render it fully definite. Claim 1 now recites a ceramic material “body” “having one side engaging a cermet composite or armor ceramic stiffening plate, a metallic material surrounding said ceramic material body and stiffening plate with said stiffening plate being interposed between said one side of said ceramic material and said metallic material” and “said ceramic material body having other sides, said metallic material being plastically deformed about said other sides of said ceramic material body.” The limitation “said ceramic material body having other sides” is believed to provide antecedent basis for the subsequent recitation of “said other sides.”

Concerning Claim 8, the phrase “such as” was identified as “vague” by the Examiner, and the acronym “PAD” was identified as “unclear.” Regarding the former issue, the phrase “such as” has been deleted. Concerning the latter issue, “PAD” is an acronym meaning “pressure assisted.” In this regard, attached to this Amendment is a print-out of a 2004 Solicitation in

which this definition is set forth. Accordingly, the Specification has been correspondingly amended on page 11, line 24. Thus, Claim 8 is believed definite.

Concerning Claim 14, the Examiner has alleged that “assemblies” has no antecedent basis in the claims. In this regard, Claim 10, from which Claim 14 depends, recites a “three piece assembly” and Claim 14 as originally presented recited a plurality of such assemblies. However, in order to clarify this matter, Claim 14 has been thoroughly revised and amended to explain that “said three piece assembly comprises a first three piece assembly” and to further recite “at least one additional three piece assembly, said three piece assemblies being stacked vertically.” As such, Claim 14 is believed definite.

Accordingly, in light of the amendments and remarks set forth above, Claims 1-14 are now believed fully definite under the purview of 35 U.S.C. 112, second paragraph.

In the outstanding Office Action, the Examiner has rejected Claims 1, 2, 5, 6 and 10-14 under 35 U.S.C. 102(b) as allegedly being clearly anticipated by U.S. Patent No. 3,616,115 to Klimmek. Applicants must respectfully disagree with this position as taken by the Examiner. Contrary to the Examiner’s assertion, the element 32 of Klimmek does not comprise a composite stiffening plate. In Klimmek, as clearly seen in Figures 2 and 3, and disclosed at column 1, line 74 - column 2, line 1, two layers of ceramic blocks 30 and 32 are provided with edges of the blocks staggered in the manner of a brick wall on a house. Partitions 34 and 36 slightly space adjacent blocks from one another and a thin sheet 14 separates the respective layers of ceramic blocks 30 and 32.

Nowhere in Klimmek is there any disclosure that the blocks 32 consist of a stiffening plate for the blocks 30. In fact, no distinction is made in Klimmek between the materials from

which the blocks 30 and 32 are made. The second layer of ceramic blocks 32 is provided to provide protection for projectiles that go between the blocks 30 in the first layer. This is why the edges of the blocks are staggered in the adjacent rows.

By contrast, the present invention contemplates one level of ceramic material and a stiffening plate made of a material stiffer than the stiffness of the metallic material to reinforce the ceramic material body and lessen the chance of projectile penetration. Accordingly, it is respectfully submitted that Klimmek does not anticipate Claims 1, 2, 5, 6 and 10-14.

In order to clearly distinguish these claims from Klimmek, Claim 1 has been thoroughly revised and amended to make it clear that the stiffening plate is a cermet composite or armor ceramic stiffening plate, and that the stiffening plate is stiffer than the metallic material. Accordingly, Claims 1, 2, 5, 6 and 10-14 are patentable over Klimmek.

Furthermore, since all of the claims at issue depend from independent Claim 1, they are all patentable as well.

The Examiner has rejected Claims 3 and 9 under 35 U.S.C. 103(a) as allegedly being unpatentable over Klimmek in view of U.S. Patent No. 5,443,917 to Tarry. In taking this position, the Examiner has relied upon Tarry for the alleged teaching of a stiffening plate comprising a cermet composite. The Examiner's position is not well taken. In Klimmek, both of the layers of ceramic blocks 30 and 32 are disclosed without any distinction between their respective materials. There is no teaching or suggestion taking these references as a whole to make one layer 30 of the Klimmek device of one material and a second layer 32 of another material. The only place where the Examiner could go for the motivation to make that modification of Klimmek is in Applicants' own disclosure. The hindsight reconstruction of the prior art in light of applicant's own disclosure is a practice forbidden in patent law. Accordingly,

this ground of rejection is without basis and should be withdrawn. Moreover, Claims 3 and 9 depend from Claim 1 which has been clearly demonstrated above to be free of anticipation from Klimmek.

The Examiner has rejected Claim 4 under 35 U.S.C. 103(a) as allegedly being unpatentable over Klimmek in view of U.S. Patent No. 5,455,079 to Oden et al. In taking this position, the Examiner has relied upon Oden et al. for the alleged teaching of making an armor plate with a Ti-TiB composite. In light of this teaching, the Examiner has taken the position that it would be obvious to replace the ceramic blocks 32 of Klimmek with blocks made of a composite material such as Ti-TiB. Again, in a similar fashion concerning the proposed rejection relying upon the combination of Klimmek and Tarry et al., there is no teaching or suggestion in these references taken as a whole to make the layer of blocks 30 of Klimmek of a ceramic material, while the layer 32 is made of a Ti-TiB composite material. The only place where the Examiner could go for the suggestion to make such a modification to Klimmek is in Applicants' own disclosure. Additionally, Claim 4 depends from Claim 1 which has clearly been demonstrated to be free of anticipation from Klimmek. Accordingly, since Oden et al. fail to cure the deficiencies of Klimmek vis.a.vis Claim 4, this claim is believed patentable for the same reasons.

The Examiner has rejected Claim 7 under 35 U.S.C. 103(a) as allegedly being unpatentable over Klimmek in view of U.S. Patent No. 6,635,357 to Moyson et al. In making this ground of rejection, the Examiner has relied upon Moyson et al. for the teaching that it is well known to form an armor plate with a Ti-6Al-4V composite. This ground of rejection fails to cure the deficiencies of Klimmek vis.a.vis the claims as now presented. In particular, the

combination of Klimmek and Moyson et al. fails to teach a stiffening plate that is stiffer than the metallic material with which it engages. Accordingly, for the same reasons set forth above, Claim 7 is equally patentable.

It is noted that the Examiner made no ground of rejection in reliance upon prior art concerning Claim 8. However, it was not deemed necessary to re-write Claim 8 in independent form to obtain allowance of the application based upon the amendments and remarks set forth hereinabove.

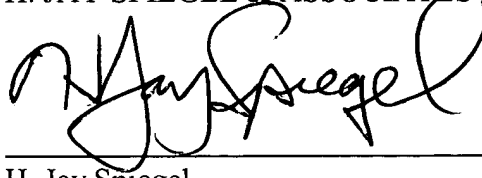
Accordingly, reconsideration and allowance of this application are respectfully solicited.

If, for some reason, the Examiner believes that an interview with Applicants' Attorney would be helpful in expediting the prosecution of this patent application, the Examiner is respectfully requested to telephone Applicants' Attorney locally at (703) 619-0101, so that a discussion of any outstanding issues may be had.

Again, reconsideration and allowance of this application are respectfully solicited.

Respectfully submitted,

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A handwritten signature in black ink, appearing to read "H. Jay Spiegel", written over a horizontal line.

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